

NOTICE OF ALLOWABILITY

Status of the Claims

This action is in response to papers filed 27 May 2011 in which claim 2 was amended. All of the amendments have been thoroughly reviewed and entered.

This action is further in response to amendments discussed and agreed upon during an interview between the examiner and Mr. Carroll on 28 June 2011.

The previous rejections in the Office Action dated 20 December 2010 are withdrawn in view of the amendments.

The amendments define the invention over the prior art and place the pending claims in condition for allowance.

Claims 2, 4, 6, 7 and 15 are in condition for allowance.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Frank Carroll on 28 June 2011.

The application has been amended as follows:

Cancel Claims 12-14.

Replace Claim 2 with the following:

A diagnostic system having a biochip readout apparatus, comprising:
a biochip readout device including: a biochip cartridge comprising: (i) an optical disc comprising a first and a second substrate and a selective wavelength reflection film disposed on the first substrate, the first substrate having one or more substantially circular lands and grooves formed thereon, the second substrate having one or more depressed portions formed therein; and (ii) at least one or more preformed biochips each comprising bio-cells spotted on the second substrate and forming an array having a substantially square or rectangular shape; wherein the at least one or more biochips are removably installed in each of the depressed portions such that the at least one or more biochips cannot be separated from the optical disc when the optical disc is rotated or moved or the biochip is combined with another substrate thereon; and the selective wavelength reflection film is disposed between the one or more biochips and the first substrate;

a disc rotation drive unit driven such that the biochip cartridge is rotated;
a system and output controlling unit for outputting monitoring bio analysis information, the system and output controlling unit having a signal processing unit for processing and analyzing the bio analysis signal corresponding to bio analysis information to generate the monitoring analysis information;

an optical pick-up device comprising:
a light receiving unit comprising one or more light sources and one or more light detectors wherein the one or more light detectors is a photomultiplier tube or

photodiode; wherein light from the one or more light sources is reflected by the reflective coating of the selective wavelength reflection film of the biochip cartridge and is detected by the one or more light detectors to obtain tracking and focusing signals for the optical pick-up device; and light from the one or more light sources causes the one or more biochips to emit a fluorescent signal that is detected by the one or more light detectors;

a focusing/tracking controlling unit for controlling a focusing and tracking operation of the optical pick-up device using the tracking and focusing signals from the first light detector, so that the light from the one or more light sources tracks along the one or more lands and grooves of the biochip cartridge;

an objective lens driving unit for focusing the light from the one or more light sources;

a bio analysis signal generation unit for receiving the fluorescent signal emitted by the one or more biochips and outputting a bio analysis signal; and

an optical recording/reproducing unit for recording a recording bio analysis signal in a predetermined area of the biochip cartridge in response to a control signal of the system and output controlling unit and reproducing recorded biochip analysis information;

a mode selection unit for selecting one of a biochip readout mode and a general optical recording/reproducing mode; and

a diagnosis device for comparing the monitoring bio information for monitoring image signal from the biochip readout device with reference data and proving an

analysis result generated based on a result of the comparing operation to a user, wherein the reference data for monitoring bio-information of the biochip are constructed in database format in the diagnosis device.

Replace Claim 15 with the following:

The biochip readout system as set forth in claim 2, further comprising a communication device for transmitting an analysis processing request data together with the monitoring image signal thereto after inputting the monitoring image signal to analyze bio-matter from the biochip readout device and connecting communication lines thereto based on predetermined communication connection information.

Allowable Subject Matter

Claims 2, 4, 6, 7 and 15 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betty Forman whose telephone number is (571)272-0741. The examiner can normally be reached on 6:00 TO 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Nguyen can be reached on (571) 272-0731. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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